



State of New Mexico
ENVIRONMENT DEPARTMENT
DOE OVERSIGHT BUREAU
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 GOVERNOR

ENTERED

PETE MAGGIORE
 SECRETARY

July 19, 1999

Joe Vozella, LAAO
 AIP Point of Contact
 U.S. Department of Energy
 Los Alamos Area Office
 528 35th Street, MS A316
 Los Alamos, NM 87544

RE: Analytical results for independent sampling at PRS 1-002 (Acid Cañon), Los Alamos County

Dear Mr. Vozella:

This past January, the Oversight Bureau (OB) collected one sediment sample within the old TA-45 drainage at potential release site (PRS) 1-002 in order to evaluate LANL's previous characterization efforts. Our results were then compared to LANL's data published under two separate reports within the past few years: "RFI Report for PRSs 1-002, 45-001, 45-002, 45-003, 45-004, C-45-001" and "Radiological Addendum to the RFI Report for Potential Release Sites 1-002, 45-001, 45-002, 45-003, 45-004, C-45-001". OB analyte concentrations were generally found to be at much higher levels than LANL's. In addition, we also found PCBs that were not previously listed by LANL as a contaminant of concern at this site. OB will perform additional sampling at this PRS in July 1999, in order to gain a better understanding of the presence and distribution of contaminants. Meanwhile, OB is releasing the attached preliminary data to you for your thirty-day review as stated in the Agreement-in-Principle Umbrella Protocol. After you have had the opportunity to review and comment on these data, they may be released to applicable agencies thirty (30) days following your receipt of this letter. Contact me at 672-0448 if you have any concerns with our data from this sampling project.

Sincerely,

Steve Yanicak, LANL POC
 Department of Energy Oversight Bureau

SY:mrj

Enclosure

cc: J. Parker, NMED, Chief, DOE Oversight Bureau
 T. Taylor, DOE LAAO, Program Manager, EM/BR, MS A316
 S. Rae, LANL, LANL, BSH-18/Group Leader, MS K497
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HSCWA LANL 1/10/99 002

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Table 1 - Trace metal analytical results for sediment collected in the TA-45 drainage to Acid Canyon (PRS I-002).

STATION ID	Date	Ag (mg/kg)	As (mg/kg)	Ba (mg/kg)	Cd (mg/kg)	Cr (mg/kg)	Hg (mg/kg)	Pb (mg/kg)	Se (mg/kg)
ACT-0.04 (TA-45 Tributary)	1/5/99	6	3	80	4.9	17 ¹	2.2	150	1.0
Method Used		6010B	6010B	6010B	6010B	6010B	7471A	6010B	6010B
Mean LANE Specific Background ²		0.066	1.840	60.4	0.093	5.62	0.012	9.25	0.100
LANE Specific UTL ³		NC(1)	3.980	127.000	NC(0.04)	10.5	NC(0.1)	19.7	NC(0.3)

1 - Superscript provided within general text.

2 - Taken from EYS, et al., 1998.

NC(U) - A UTL was not calculated. The detection limit, noted parenthetically, is used as a background value.

(U) - Not detected or is above the reporting limit.

Note: Sample collected in drainage approximately 500 ft downstream of mouth of the Los Alamos Aquatic Canyon.

Table 2 - Gas flow proportional counting and alpha spectroscopy analytical results for sediment collected in the TA-45 drainage to Acid Canyon (PRS 1-002).

STATION ID	Date	90Sr		234U		235U		238U		238Pu		239/240Pu		237Np		Alpha		Beta	
		(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)	(dCi/g)	(mBq/g)
ACT-0.04 (TA-45 Tributary)	1/8/99	56	NDP	10.2	NDP	0.52	NDP	4.02	NDP	4.53	NDP	373	NDP	0.03	NDP	358	NDP	124	NDP
Method Used		AFPC (234+232)/CFC		FAIT (234)/alpha spec		FAIT (235)/alpha spec		FAIT (238)/alpha spec		FAIT (238)/alpha spec		FAIT (239)/alpha spec		Alpha Spec		Method PR-0719-04 used for alpha/beta			
Matrix LAMT Specific Impregnant		0.239		1.40		0.087		1.22		0.0071		0.015		NP		NP		NP	
LAMT Specific UTEF		1.04		2.59		0.20		2.29		0.006		0.063		NP		NP		NP	

1 - Table PR-0719-04, 1/99.

NP - Not present.

NDP - Within analytical considerations.

Note: Sample collected in duplicate approximately 100 ft downstream of pipe at the Los Chinos Aquatic Center.

Sample is reported as a dry weight basis, except for 238U which is reported as an as received weight basis on matrix specific.

Table 3 - Gamma-spectroscopy analytical results for sediment collected in the TA-45 drainage to Acid Canyon (PRS 1-002).

STATION ID	Date	241Am		137Cs		60Co		212Pb		214Pb		228Ac		208Tl		214Bi		212Bi		22Na		235U	
		(pCi/g)	Bq/g																				
ACT-0.04 (TA-45 Tributary)	10/99	68	25	17.4	64	<0.17	0.63	1.87	6.9	1.69	6.3	1.55	5.7	0.52	1.9	1.26	4.7	3.5	13	<0.13	0.4	<0.50	1.8
Below LMT Specific Background ¹		0.00		4.11		ND	0.07																
LMT Specific UPL ²		0.05		0.01		ND	0.01																

1 - Table from EPA, 1996

ND - Not Detected

BQL - Below Detection Limit

Results are reported on a dry weight basis.

Field sample collected by discharge approximately 650 ft downstream of mouth of the Los Alamos Aquatic Canyon.

TABLE 4 - PCB and Pesticide analytical results for sediment collected in the TA-45 drainage to Acid Canyon (PRS 1-002).

SAMPLE ID: ACT-0.04 (TA-45 Tributary)			
SAMPLING DATE:		1/5/99	
Analyte	UNITS	nd/c	BL
AROCLOR 1016		ND	2,600
AROCLOR 1221		ND	5,100
AROCLOR 1232		ND	2,600
AROCLOR 1242		ND	2,600
AROCLOR 1248		ND	2,600
AROCLOR 1254		10,100	2,600
AROCLOR 1260		ND	2,600
alpha -BHC		ND	130
gamma - BHC (Lindane)		ND	130
Heptachlor		ND	130
Aldrin		ND	130
beta - BHC		ND	130
delta - BHC		ND	130
Heptachlor Epoxide		ND	130
Endosulfan I		ND	130
Gamma Chlordane		ND	130
Alpha Chlordane		ND	130
4,4' - DDE		ND	260
Dieldrin		ND	260
Endrin		ND	260
4,4' - DDD		ND	260
Endosulfan II		ND	260
4,4' - DDT		ND	260
Endrin Aldehyde		ND	260
Methoxychlor		ND	1,300
Endosulfan Sulfate		ND	260
Endrin Ketone		ND	260
Toxaphene		ND	13,000

Method used: EPA
 Note: Sample was analyzed against the existing time requirements, due to the error.
 ND - Not detected at or below the stated reporting level.